

## PREFACE

The previous issue of *Philosophica* (volume 63) contained five case studies in discovery and/or creativity. This issue contains general methodological studies on the same topics.

In *Contextual Problem Solving and Adaptive Logics in Creative Processes*, Diderik Batens argues that creativity is not beyond the scope of rationality. He shows that available insights in epistemology and available results in logic enable us to incorporate creativity within an independently sensible view on human rationality.

In *Procedures and Strategies: Context-dependence in Creativity*, Ingar Brinck focuses on creativity as a cognitive activity. Her starting point are recent theories which suggest that some kinds of mental representation are context-dependent (not only what is represented, but also how it is done, depends on the context and the subject's interaction with it). She investigates the consequences of this context-dependence for creativity.

In *An Epistemological Base for the Problem Solving Model of Creativity*, Juli T. Eflin shows how scientific understanding can be reached through the exercise of well-chosen intellectual virtues. On her approach, creativity is central. Creativity results *from* intellectual virtues and results *in* scientific understanding.

In *Reasons and Obstacles for a Logic of Discovery*, Rodolfo Gaeta and Nélide Gentile argue that the complexity of the discussion on the possibility of formulating a logic of discovery is largely due to the circumstance that the participants in the debate do not clearly distinguish the different theses submitted for discussion.

In *The Positivists' Approach to Scientific Discovery*, Joke Meheus explains how in the early eighties philosophers of science came to the conviction that discovery and creativity form an integral part of scientific rationality. Ever since, the "positivists" (logical positivists and their immediate forerunners) have been criticised for their (alleged) neglect of

these topics. She argues that the positivists' approach to scientific discovery is not only much richer than is commonly recognized, but that they even defended an important thesis which some of the 'friends of discovery' seem to have forgotten.

In *Scientific Revolutions, Rationality and Creativity*, I discuss three questions relating to the evolution of scientific disciplines:

- (1) Are scientific revolutions important for the growth of science?
- (2) Can the choice to pursue one line of research rather than another, ever be rational? Or are such choices always arbitrary?
- (3) Are revolutions the creative moments in science? Do they require creativity, while gradual change is possible without creativity?

The papers of Diderik Batens and Erik Weber were presented at a workshop in May 1995, organised by the Centre for Logic and Philosophy of Science of Ghent University in cooperation with the Philosophy of Science Section of the Dutch Research School in Philosophy (NWO-onderzoeksschool Wijsbegeerte - Kamer Wetenschapsfilosofie). The papers of Ingar Brinck, Juli Eflin and Rodolfo Gaeta & Nélida Gentile were presented at the International Congress on Discovery and Creativity (Ghent, 14-16 May 1998) that was organised by the Centre for Logic and Philosophy of Science.

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